

Please replace the paragraph beginning on Page 1, line 17 with the following amended paragraph:

This application relates to co-pending United States patent application Serial No. 10/066,950, attorney docket number P7229, filed on February 4, 2002, entitled "Remote Services Delivery Architecture" and naming Michael J. Wookey, Trevor Watson and Jean Chouanard as inventors, the application being incorporated herein by reference in its entirety.

Please replace the paragraph beginning on Page 1, line 24 with the following amended paragraph:

This application relates to co-pending United States patent application Serial No. 10/066,828, attorney docket number P7230, filed on February 4, 2002, entitled "Prioritization of Remote Services Messages Within a Low Bandwidth Environment" and naming Michael J. Wookey, Trevor Watson and Jean Chouanard as inventors, the application being incorporated herein by reference in its entirety.

Please replace the paragraph beginning on Page 1, line 30 with the following amended paragraph:

This application relates to co-pending United States patent application Serial No. 10/067,165, attorney docket number P7231, filed on February 4, 2002, entitled "Remote Services System Back-Channel Multicasting" and naming Michael J. Wookey, Trevor Watson and Jean Chouanard as inventors, the application being incorporated herein by reference in its entirety.

Please replace the paragraph beginning on Page 2, line 4 with the following amended paragraph:

This application relates to co-pending United States patent application Serial No. 10/066,841, attorney docket number P7233, filed on February 4, 2002, entitled "Remote Services System Data Delivery Mechanism" and naming Michael J. Wookey, Trevor Watson and Jean Chouanard as inventors, the application being incorporated herein by reference in its entirety.

Please replace the paragraph beginning on Page 2, line 10 with the following amended paragraph:

*AO*

---

This application relates to co-pending United States patent application Serial No. 10/066,914, attorney docket number P7234, filed on February 4, 2002, entitled "Remote Services WAN Connection Identity Anti-spoofing Control" and naming Michael J. Wookey, Trevor Watson and Jean Chouanard as inventors, the application being incorporated herein by reference in its entirety.

Please replace the paragraph beginning on Page 2, line 16 with the following amended paragraph:

*AM*

---

This application relates to co-pending United States patent application Serial No. 10/066,075, attorney docket number P7235, filed on February 4, 2002, entitled "Automatic Communication Security Reconfiguration for Remote Services" and naming Michael J. Wookey, Trevor Watson and Jean Chouanard as inventors, the application being incorporated herein by reference in its entirety.

Please replace the paragraph beginning on Page 34, line 13 with the following amended paragraph:

*AM*

---

Referring again to Figure 14, the remote services proxy 210 enables multiple integrators 212 running on the same host to connect through a shared service layer to the remote services system 100. The remote services proxy 210 also provides a means by which requests from the remote services system 100 to the systems management platform 1506 can be received and routed correctly. The proxy 210 is fast and lightweight by running in native code on the host.

Please replace the paragraph beginning on Page 35, line 4 with the following amended paragraph:

*AM*

---

In session mode (i.e., there is a forward and back-channel for messages), the remote services proxy daemon 1414 expects to get a positive acknowledgement of registration before the proxy daemon 1414 begins full operation. Receipt of positive acknowledgement is stored in persistent data of the remote services proxy 210. Where there is no back-channel capability, however, (i.e., the system is in message mode) the remote services proxy 210 determines whether session or message mode is active through the communications layer API 440.

Please replace the paragraph beginning on Page 36, line 17, with the following amended paragraph:

A10 The next stage of the registration process is for the integrator 212 to register all support instances that the integrator 212 is managing. A support instance is a device, host or software component which is being managed by the systems management platform 1506 to which the integrator 212 is connected. Registration of support instances allows the remote services system 100 to perform entitlement checking against the instance and the services being provided to the customer and enables the remote services system to send data or instructions to that particular support instance to provide a particular service action.

Please replace the paragraph beginning on Page 37, line 13, with the following amended paragraph:

A11 Support instance registration occurs dynamically during the lifetime of the integrator's 212 connection to the system management platform 1506. For example, when a new agent (i.e., support instance) is added to the system management topology, the system management platform notifies the integrator 212 which then sends a registration request for that support instance. The integrator 212 only registers support instances which have an agent installed.

Please replace the paragraph beginning on Page 38, line 25, with the following amended paragraph:

A12 Referring again to Figure 14, the remote services proxy 210 uses queuing module 1432 to provide persistent queuing of requests to be sent to the remote services system 100. Accordingly, in the event of a temporary network outage, or the failure of a local or remote MLM, data is not lost.

Please replace the paragraph beginning on Page 41, line 30, with the following amended paragraph:

A13 For availability purposes, the proxy 210 sends a status heartbeat back to the remote services system 100 at regular periods. The period depends on the deployment model and the communications module in use. The period is configurable. Where the communications module 1428 allows for back-channel communications, the proxy 210 may receive a back-channel request when sending out the status heartbeat message. The proxy 210 makes a regular callback

on the back-channel of the integrator API 430 to each of the integrators 212 which have registered with the proxy 210. This callback requests the status of the integrator 212, the status of the system management platform and optionally the status of each support instance. Once the status has been gathered for all active integrators 212, the proxy 210 adds its own status and sends the entire status as a message back to the remote services system 100.

Please replace the paragraph beginning on page 43, line 6, with the following amended paragraph:

Because the integrator 212 may be a component of the systems management platform 1505, it may be difficult to update this integrator automatically unless provided for by the systems management vendor. Each integration module includes a capability which determines whether or not the integration module can be updated automatically. If this capability is defined, this functionality is provided for in the integration module's API. The integration module itself then receives the notification of the update via the API and is responsible for locating, installing and starting the update. When an integration module cannot be updated automatically, the customer is notified of the update via an administration portal and is provided instructions (or a script) to perform the update manually.

Please replace the paragraph beginning on page 43, line 16, with the following amended paragraph:

Not all systems management platforms 1506 support loading of modules into an agent layer, and even those that do may not support the loading programmatically. The systems management platforms 1506 that do support programmatic loading of modules provide an implementation for the appropriate API call in the integrator API 430. The proxy 210 may then call this API when a new module is to be loaded. To save passing large volumes of data through the API, a file name (or URL) may be passed to the integrator 212. The integrator 212 is then responsible for loading and processing the update. Where the systems management platform 1506 does not support programmatic loading of modules, the customer is advised of a new module (or update) via the administration portal and is provided instructions (or a script) via which the module can be manually added.